

9stufige Grauskalierung zwischen  $L^*_{0aN}=22$  &  $L^*_{0aW}=103.7$ ,  $Y_{0ref}=4$ , Normierung Weiß W

$L^*_{0aN}=22.4$ ,  $L^*_{0aU}=63.1$ ,  $L^*_{0aW}=103.7$ ,  $Y_{0aN}=3.6$ ,  $Y_{0aU}=31.7$ ,  $Y_{0aW}=110.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$

$L^*_{taN}=32.6$ ,  $L^*_{taU}=65.3$ ,  $L^*_{taW}=103.7$ ,  $Y_{taN}=7.4$ ,  $Y_{taU}=34.4$ ,  $Y_{taW}=110.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=14.9$

Regularitätsindex nach ISO/IEC 15775:2022, Anhang G für 5 und 9 Stufen

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB,W} = 116 [Y/Y_n]^{1/3} - 16$  mit  $Y \geq 0.882$ ,  $Y_n=100$

$g^*_5 = 99$ ,  $g^*_9 = 99$        $g^*_5 = 76$ ,  $g^*_9 = 70$        $g^*_5 = 82$ ,  $g^*_9 = 76$

| n0.i | angestrebte Ausgabe |            |          |          | reale Ausgabe |                   |            |          | linearisierte Ausgabe |            |                   |  |
|------|---------------------|------------|----------|----------|---------------|-------------------|------------|----------|-----------------------|------------|-------------------|--|
|      | $L^*_{0a}$          | $L^*_{0r}$ | $Y_{0a}$ | $Y_{0r}$ | $L^*_{ta}$    | $\Delta L^*_{ta}$ | $L^*_{tr}$ | $Y_{ta}$ | $(L^*_{tr})^{1/1.23}$ | $L^*_{la}$ | $\Delta L^*_{la}$ |  |
| 9    | 103.7               | 1.0        | 110.0    | 1.0      | 103.7         |                   | 1.0        | 110.0    | 1.0                   | 103.7      |                   |  |
| 8    | 93.6                | 0.875      | 84.3     | 0.758    | 94.0          | 9.8               | 0.862      | 85.2     | 0.886                 | 95.7       | 8.1               |  |
| 7    | 83.4                | 0.75       | 62.9     | 0.558    | 84.3          | 9.7               | 0.726      | 64.6     | 0.771                 | 87.4       | 8.2               |  |
| 6    | 73.2                | 0.625      | 45.5     | 0.394    | 74.7          | 9.6               | 0.592      | 47.8     | 0.652                 | 79.0       | 8.4               |  |
| 5    | 63.1                | 0.5        | 31.7     | 0.264    | 65.3          | 9.4               | 0.459      | 34.4     | 0.531                 | 70.4       | 8.6               |  |
| 4    | 52.9                | 0.375      | 21.0     | 0.163    | 56.2          | 9.1               | 0.331      | 24.1     | 0.407                 | 61.5       | 8.8               |  |
| 3    | 42.8                | 0.25       | 13.0     | 0.088    | 47.5          | 8.7               | 0.209      | 16.4     | 0.279                 | 52.5       | 9.0               |  |
| 2    | 32.6                | 0.125      | 7.3      | 0.035    | 39.5          | 8.0               | 0.097      | 11.0     | 0.149                 | 43.2       | 9.3               |  |
| 1    | 22.4                | 0.0        | 3.6      | 0.0      | 32.6          | 6.9               | 0.0        | 7.4      | 0.0                   | 32.6       | 10.6              |  |

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) Normierung:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

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9stufige Grauskalierung zwischen  $L^*_{0aN}=22$  &  $L^*_{0aW}=103.7$ ,  $Y_{0ref}=2$ , Normierung Weiß W

$L^*_{0aN}=22.4$ ,  $L^*_{0aU}=63.1$ ,  $L^*_{0aW}=103.7$ ,  $Y_{0aN}=3.6$ ,  $Y_{0aU}=31.7$ ,  $Y_{0aW}=110.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$

$L^*_{taN}=28.2$ ,  $L^*_{taU}=64.2$ ,  $L^*_{taW}=103.7$ ,  $Y_{taN}=5.5$ ,  $Y_{taU}=33.1$ ,  $Y_{taW}=110.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=19.8$

Regularitätsindex nach ISO/IEC 15775:2022, Anhang G für 5 und 9 Stufen

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB,W} = 116 [Y/Y_n]^{1/3} - 16$  mit  $Y \geq 0.882$ ,  $Y_n=100$

$g^*_5 = 99$ ,  $g^*_9 = 99$        $g^*_5 = 85$ ,  $g^*_9 = 81$        $g^*_5 = 88$ ,  $g^*_9 = 84$

| n0.i | angestrebte Ausgabe |            |          |          | reale Ausgabe |                   |            |          | linearisierte Ausgabe |            |                   |  |
|------|---------------------|------------|----------|----------|---------------|-------------------|------------|----------|-----------------------|------------|-------------------|--|
|      | $L^*_{0a}$          | $L^*_{0r}$ | $Y_{0a}$ | $Y_{0r}$ | $L^*_{ta}$    | $\Delta L^*_{ta}$ | $L^*_{tr}$ | $Y_{ta}$ | $(L^*_{tr})^{1/1.13}$ | $L^*_{la}$ | $\Delta L^*_{la}$ |  |
| 9    | 103.7               | 1.0        | 110.0    | 1.0      | 103.7         |                   | 1.0        | 110.0    | 1.0                   | 103.7      |                   |  |
| 8    | 93.6                | 0.875      | 84.3     | 0.758    | 93.8          | 10.0              | 0.868      | 84.8     | 0.882                 | 94.8       | 8.9               |  |
| 7    | 83.4                | 0.75       | 62.9     | 0.558    | 83.9          | 9.9               | 0.737      | 63.8     | 0.763                 | 85.8       | 9.0               |  |
| 6    | 73.2                | 0.625      | 45.5     | 0.394    | 74.0          | 9.8               | 0.606      | 46.7     | 0.642                 | 76.7       | 9.1               |  |
| 5    | 63.1                | 0.5        | 31.7     | 0.264    | 64.2          | 9.6               | 0.477      | 33.1     | 0.519                 | 67.4       | 9.3               |  |
| 4    | 52.9                | 0.375      | 21.0     | 0.163    | 54.6          | 9.3               | 0.35       | 22.6     | 0.394                 | 58.0       | 9.6               |  |
| 3    | 42.8                | 0.25       | 13.0     | 0.088    | 45.3          | 8.9               | 0.226      | 14.7     | 0.267                 | 48.4       | 9.7               |  |
| 2    | 32.6                | 0.125      | 7.3      | 0.035    | 36.3          | 8.1               | 0.108      | 9.2      | 0.139                 | 38.7       | 9.7               |  |
| 1    | 22.4                | 0.0        | 3.6      | 0.0      | 28.2          |                   | 0.0        | 5.5      | 0.0                   | 28.2       |                   |  |

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) Normierung:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

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9stufige Grauskalierung zwischen  $L^*_{0aN}=22$  &  $L^*_{0aW}=103.7$ ,  $Y_{0ref}=1$ , Normierung Weiß W

$L^*_{0aN}=22.4$ ,  $L^*_{0aU}=63.1$ ,  $L^*_{0aW}=103.7$ ,  $Y_{0aN}=3.6$ ,  $Y_{0aU}=31.7$ ,  $Y_{0aW}=110.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$

$L^*_{taN}=25.6$ ,  $L^*_{taU}=63.7$ ,  $L^*_{taW}=103.7$ ,  $Y_{taN}=4.6$ ,  $Y_{taU}=32.4$ ,  $Y_{taW}=110.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=23.9$

Regularitätsindex nach ISO/IEC 15775:2022, Anhang G für 5 und 9 Stufen

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB,W} = 116 [Y/Y_n]^{1/3} - 16$  mit  $Y \geq 0.882$ ,  $Y_n=100$

$g^*_5 = 99$ ,  $g^*_9 = 99$        $g^*_5 = 92$ ,  $g^*_9 = 89$        $g^*_5 = 93$ ,  $g^*_9 = 91$

| n0.i | angestrebte Ausgabe |            |          |          | reale Ausgabe |                   |            |          | linearisierte Ausgabe |            |                   |  |
|------|---------------------|------------|----------|----------|---------------|-------------------|------------|----------|-----------------------|------------|-------------------|--|
|      | $L^*_{0a}$          | $L^*_{0r}$ | $Y_{0a}$ | $Y_{0r}$ | $L^*_{ta}$    | $\Delta L^*_{ta}$ | $L^*_{tr}$ | $Y_{ta}$ | $(L^*_{tr})^{1/1.07}$ | $L^*_{la}$ | $\Delta L^*_{la}$ |  |
| 9    | 103.7               | 1.0        | 110.0    | 1.0      | 103.7         |                   | 1.0        | 110.0    | 1.0                   | 103.7      |                   |  |
| 8    | 93.6                | 0.875      | 84.3     | 0.758    | 93.7          | 10.1              | 0.871      | 84.5     | 0.879                 | 94.3       | 9.4               |  |
| 7    | 83.4                | 0.75       | 62.9     | 0.558    | 83.6          | 10.0              | 0.743      | 63.4     | 0.757                 | 84.8       | 9.5               |  |
| 6    | 73.2                | 0.625      | 45.5     | 0.394    | 73.6          | 10.0              | 0.615      | 46.1     | 0.634                 | 75.2       | 9.6               |  |
| 5    | 63.1                | 0.5        | 31.7     | 0.264    | 63.7          | 9.9               | 0.487      | 32.4     | 0.51                  | 65.5       | 9.7               |  |
| 4    | 52.9                | 0.375      | 21.0     | 0.163    | 53.8          | 9.9               | 0.361      | 21.8     | 0.386                 | 55.7       | 9.8               |  |
| 3    | 42.8                | 0.25       | 13.0     | 0.088    | 44.1          | 9.7               | 0.237      | 13.9     | 0.259                 | 45.8       | 9.8               |  |
| 2    | 32.6                | 0.125      | 7.3      | 0.035    | 34.6          | 9.5               | 0.115      | 8.3      | 0.132                 | 35.9       | 9.9               |  |
| 1    | 22.4                | 0.0        | 3.6      | 0.0      | 25.6          | 9.0               | 0.0        | 4.6      | 0.0                   | 25.6       | 10.3              |  |

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) Normierung:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

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9stufige Grauskalierung zwischen  $L^*_{0aN}=22$  &  $L^*_{0aW}=103.7$ ,  $Y_{0ref}=110$ , Normierung Weiß W

$L^*_{0aN}=22.4$ ,  $L^*_{0aU}=63.1$ ,  $L^*_{0aW}=103.7$ ,  $Y_{0aN}=3.6$ ,  $Y_{0aU}=31.7$ ,  $Y_{0aW}=110.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$

$L^*_{taN}=80.1$ ,  $L^*_{taU}=87.4$ ,  $L^*_{taW}=103.7$ ,  $Y_{taN}=56.8$ ,  $Y_{taU}=70.8$ ,  $Y_{taW}=110.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=1.9$

Regularitätsindex nach ISO/IEC 15775:2022, Anhang G für 5 und 9 Stufen

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB,W} = 116 [Y/Y_n]^{1/3} - 16$  mit  $Y \geq 0.882$ ,  $Y_n=100$

$g^*_5 = 99$ ,  $g^*_9 = 99$        $g^*_5 = 27$ ,  $g^*_9 = 21$        $g^*_5 = 57$ ,  $g^*_9 = 43$

| n0.i | angestrebte Ausgabe |            |          |          | reale Ausgabe |                   |            |          | linearisierte Ausgabe |            |                   |  |
|------|---------------------|------------|----------|----------|---------------|-------------------|------------|----------|-----------------------|------------|-------------------|--|
|      | $L^*_{0a}$          | $L^*_{0r}$ | $Y_{0a}$ | $Y_{0r}$ | $L^*_{ta}$    | $\Delta L^*_{ta}$ | $L^*_{tr}$ | $Y_{ta}$ | $(L^*_{tr})^{1/2.15}$ | $L^*_{la}$ | $\Delta L^*_{la}$ |  |
| 9    | 103.7               | 1.0        | 110.0    | 1.0      | 103.7         |                   | 1.0        | 110.0    | 1.0                   | 103.7      |                   |  |
| 8    | 93.6                | 0.875      | 84.3     | 0.758    | 98.9          | 4.8               | 0.795      | 97.1     | 0.899                 | 101.3      | 2.4               |  |
| 7    | 83.4                | 0.75       | 62.9     | 0.558    | 94.5          | 4.4               | 0.61       | 86.5     | 0.795                 | 98.9       | 2.5               |  |
| 6    | 73.2                | 0.625      | 45.5     | 0.394    | 90.7          | 3.8               | 0.448      | 77.8     | 0.688                 | 96.4       | 2.5               |  |
| 5    | 63.1                | 0.5        | 31.7     | 0.264    | 87.4          | 3.7               | 0.31       | 70.8     | 0.58                  | 93.8       | 2.6               |  |
| 4    | 52.9                | 0.375      | 21.0     | 0.163    | 84.7          | 3.3               | 0.197      | 65.5     | 0.47                  | 91.2       | 2.6               |  |
| 3    | 42.8                | 0.25       | 13.0     | 0.088    | 82.6          | 2.1               | 0.108      | 61.5     | 0.356                 | 88.5       | 2.7               |  |
| 2    | 32.6                | 0.125      | 7.3      | 0.035    | 81.1          | 1.5               | 0.044      | 58.7     | 0.233                 | 85.6       | 2.9               |  |
| 1    | 22.4                | 0.0        | 3.6      | 0.0      | 80.1          | 1.0               | 0.0        | 56.8     | 0.0                   | 80.1       | 5.5               |  |

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) Normierung:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

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